

CLAIMS

1. A method for unblocking immunization at a regional lymph
5 node by:

promoting differentiation and maturation of immature dendritic
cells in a regional lymph node and;

allowing presentation by resulting mature dendritic cells of
antigen to T-cells to gain immunization of the T-cells to the antigen.

10

2. A method according to claim 1, wherein said promoting step
is further defined as administering a natural cytokine mixture (NCM)
perilymphatically into lymphatics that drain into lymph nodes regional to a
lesion to be treated.

15

3. A method according to claim 2, wherein the lesion is
cancerous or an other persistent lesion.

20

4. A method according to claim 3, wherein the presented lesion
is infectious.

5. A method according to claim 1, wherein the antigen is an
endogenous antigen.

25

6. A method according to claim 1, wherein the antigen is an
exogenous antigen.

30

7. A method according to claim 2 wherein said administering
step is further defined as injecting the NCM perilymphatically,
intralymphatically, intranodally, intrasplenically, subcutaneously,
intramuscularly or intracutaneously.

8. A method of inducing immunization to cancer or persistent
lesions by

administering an effective amount of an exogenous antigen and an adjuvant consisting of a natural cytokine mixture (NCM).

9. A method according to claim 7, wherein said administering
5 step is further defined as administering an NCM including IL-1, IL-2, IL-6, IL-8, δ IFN and TNF α .

10. A method according to claim 8 wherein said administering
10 step is further defined as injecting the NCM perilymphatically, intralymphatically, intranodally, intrasplenically, subcutaneously, intramuscularly or intracutaneously.

11. A method for overcoming mild to moderate T cell depletion
15 and restoring T cell immune response by inducing production of naïve T cells.

12. A method according to claim 11, wherein said inducing step is further defined as administering a natural cytokine mixture (NCM).

13. A method according to claim 11 wherein said administering
20 step is further defined as injecting the NCM perilymphatically, intralymphatically, intranodally, intrasplenically, subcutaneously, intramuscularly or intracutaneously.

14. A method according to claim 12, wherein said administering
25 step is further defined as injecting an NCM including IL-1, IL-2, IL-6, IL-8, δ IFN and TNF α .

15. A method according to claim 14, wherein said administering
30 step including administering about 150-600 units of IL-2 per injection in the NCM.

16. A method according to claim 11, wherein said blocking and inducing steps are further defined as codelivering cyclophosphamide and a nonsteroidal anti-inflammatory drug (NSAID).

5

17. A method of treating a cancer or other persistent lesion in an immune suppressed patient by administering an effective amount of a natural cytokine mixture as an adjuvant to endogenous or exogenously administering antigen from the cancer or persistent lesion.

10

18. A method according to claim 14, wherein said administering step is further defined as injecting an NCM including IL-1, IL-2, IL-6, IL-8, TNF α and δ IFN.

15

19. A method according to claim 18, wherein said administering step is further defined as injecting an NCM including IL-1, IL-2, IL-6, IL-8, TNF α and δ IFN.

20

20. A method according to claim 17, further including the steps of blocking endogenous suppression of T-cells directly or indirectly by the endogenous lesion being treated.

25

21. A method according to claim 17, wherein said blocking and inducing steps are further defined as codelivering cyclophosphamide and a nonsteroidal anti-inflammatory drug (NSAID).

30

22. A method according to claim 21, wherein the NSAIDS is selected from the group including indomethacin, ibuprofen, viox, celebrex and other related compounds.

23. A method of vaccine immunotherapy including the steps of:
inducing production of naive T-cells and

exposing the naïve T-cells to endogenous or exogenous antigens.

24. A method according to claim 23, wherein said exposing step
5 is further defined as exposing the naïve T-cells to endogenously processed peptide preparation resident in regional nodes of a patient who possesses a lesion.

25. A method according to claim 24, wherein the lesion is
10 cancerous or infectious.

26. A method according to claim 23, wherein said exposing step is further defined as administering an exogenously produced antigen.

27. A method according to claim 23, wherein said antigen is
15 otherwise non-immunogenic peptide.

28. A method according to claim 23, wherein said exposing step is further defined as immunizing the naïve T-cells with matured peptide
20 presenting dendritic cells at a lymph node distal from a lesion to be treated.

29. A method of treating lymphocytopenic by administering an effective amount of a natural cytokine mixture.